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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LELE, TANMAY S

ART UNIT	PAPER NUMBER
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2681

DATE MAILED: 04/07/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/517,186

Applicant(s)

TAKEMURA, HISAO

Examiner

Tanmay S Lele

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8,9,11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8,9,11 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 19 February 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Response to Arguments

1. Applicant's arguments filed 19 February 2003 have been fully considered but they are not persuasive.
2. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).
3. Regarding claims 8, 9, and 11, Applicant attempts to overcome the rejection by stating, "Kelly et al. do not disclose, teach, or suggest at least a molded case having a two dimensional center including the coil antenna, wherein each coil antenna is located at a position in the device relatively different from each other when a plurality of devices is stacked." Examiner concedes this, as stated in the previous Office Action (paper 4, page 6). Examiner brings in the Yap and Rostoker references to overcome these deficiencies for the motivations stated in the previous Office Action (paper number 4, pages 6 and 7). Yap, in the cited passages from the previous Office Action, does allude to a molded case (for example, column 14, lines 1 – 7 and lines 28 – 37), a two-dimensional center (as viewed from above, length and width defining the coordinates, both of which give rise to a location defined by the antenna's center) including the coil antenna (once more stated in the cited passages from the previous Office Action, paper number 4, page 6, and for example Figure 1). Examiner once more concedes that the combination of Kelly in view Yap (for the cited motivation), still fail to teach each coil antenna is located at a position in the device relatively different from each other when a plurality of devices is stacked. Thus, the Rostoker reference is introduced, for the motivation cited in the previous Office Action (paper

number 4, page 7) to overcome these deficiencies. In the passages cited in the previous Office Action (paper number 4, page 7), Rostoker shows and describes antennas disposed in different portions (column 9, lines 19 –35 and Figure 6). Rostoker further provides evidence that the stated different portions could be different layers (further seen in Figures 7 and 8 and column 10, lines 1 – 46). The Rostoker reference therefore teaches that antennas can be stacked on different substrate layers (and positions, not that IC's would be stacked) and thus when combined with Kelly and Yap, teach the claimed limitations. Hence, the Examiner is not persuaded by the Applicant's argument that the references do not teach, recite, or suggest the features disclosed. (Note that a copy of the rejection as cited in the previous Office Action, paper number 4, has been pasted below, only with respect to claims 8, 9, and amended claim 11).

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 8, 9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly et al (Kelly, US Patent No 6,010,074) in view of Yap et al. (Yap, US Patent No. 6,111,506) and in further view of Rostoker et al. (Rostoker, US Patent No. 6,373,447).

Regarding claim 8, Kelly teaches of a wireless information storage device, comprising: a coil antenna for transmitting and/or receiving a signal via wireless communication (as seen in Figure 1 and column 4, lines 13 – 15); a memory for storing information (as seen in Figure 2 and

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column 4, lines 26 – 36); and a control unit that generates information by demodulating a signal received via the coil antenna, and generates a signal to be transmitted via the coil antenna by modulating information stored in the memory (as seen in Figure 1 and column 4, lines 13 – 25).

Kelly does not specifically teach of having a two-dimensional center [coil antenna] and a molded case having a two-dimensional center including the coil antenna, wherein each coil antenna is located at a position in the device relatively different from each other when a plurality of devices is stacked.

In a related art dealing with a contact-less card communication unit, Yap teaches of a two-dimensional center [coil antenna] and a molded case having a two-dimensional center including the coil antenna (as seen in Figures 1 – 5 and column 12, lines 59 – 63 and starting column 13 line 64 and ending column 14, line 34).

It would have been obvious to one skilled in the art at the time of invention to have included into Kelly's contact-less data collection system, Yap's antenna structure and position, for the purposes of quickly and securely verifying information for security purposes in a reliable manner without added delay or inconvenience, as taught by Yap.

Kelly in view of Yap still do not teach of each coil antenna is located at a position in the device relatively different from each other when a plurality of devices is stacked.

In a related art dealing with embedded antennas, Rostoker teaches of each coil antenna is located at a position in the device relatively different from each other when a plurality of devices is stacked (as seen in Figure 6 and starting column 8, line 66 and ending column 9, line 55).

It would have been obvious to one skilled in the art at the time of invention to have included into Kelly and Yap's contact-less communication device, Rostoker's antenna system, for the purposes of reducing the physical size of the radio system, as taught by Rostoker.

Regarding claim 9, Kelly in view Yap and Rostoker, teach all the claimed limitations as recited in claim 8. Rostoker further teaches that the position is a place where the two-dimensional center of the coil antenna is off from the two-dimensional center of the molded case (as seen in Figure 6 and starting column 8, line 66 and ending column 9, line 55).

Regarding claim 11, Kelly teaches of a method for putting a wireless information storage device on or into an item, the device comprising a coil antenna (as seen in Figure 1 and column 4, lines 13 – 25).

Kelly does not specifically teach of a molded case including the coil antenna, having a two-dimensional center including the coil antenna, or of comprising the step of putting the device at a position in the item relatively different from each other when a plurality of item is stacked.

In a related art dealing with a contact-less card communication unit, Yap teaches of a molded case including the coil antenna, having a two-dimensional center including the coil antenna (as seen in Figures 1 – 5 and column 12, lines 59 – 63 and starting column 13 line 64 and ending column 14, line 34).

It would have been obvious to one skilled in the art at the time of invention to have included into Kelly's contact-less data collection system, Yap's antenna structure and position, for the purposes of quickly and securely verifying information for security purposes in a reliable manner without added delay or inconvenience, as taught by Yap.

Kelly in view of Yap still do not teach of comprising the step of putting the device at a position in the item relatively different from each other when a plurality of item is stacked.

In a related art dealing with embedded antennas, Rostoker teaches of comprising the step of putting the device at a position in the item relatively different from each other when a plurality of items is stacked (as seen in Figure 6 and starting column 8, line 66 and ending column 9, line 55).

It would have been obvious to one skilled in the art at the time of invention to have included into Kelly and Yap's contact-less communication device, Rostoker's antenna system, for the purposes of reducing the physical size of the radio system, as taught by Rostoker.

3. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly et al (Kelly, US Patent No 6,010,074) in view of Yap et al. (Yap, US Patent No. 6,111,506) and in further view of Rostoker et al. (Rostoker, US Patent No. 6,373,447) and in further view of Farmont (Farmont, US Patent No. 5,498,859).

Regarding claim 12, Kelly teaches of a reader/writer system comprising: a coil antenna having a two-dimensional center for transmitting and/or receiving a signal via wireless communication (as seen in Figure 1 and column 4, lines 13 – 15); a memory (as seen in Figure 2 and column 4, lines 26 – 36); a control unit that generates information by demodulating a signal received via the coil antenna, and generates a signal to be transmitted via the coil antenna by modulating information stored in the memory, (as seen in Figure 1 and column 4, lines 13 – 25).

Kelly does not specifically teach of a molded case including the coil antenna, wherein the two-dimensional center of the coil antenna is off from a two-dimensional center of the molded

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case; an antenna box that communicates with the plurality of wireless information storage devices to receive a signal from the plurality of the wireless information storage devices; and a computer connected to the antenna box to process the signal received via the antenna box.

In a related art dealing with a contact-less card communication unit, Yap teaches of a molded case including the coil antenna, wherein the two-dimensional center of the coil antenna is off from a two-dimensional center of the molded case (as seen in Figures 1 – 5 and column 12, lines 59 – 63 and starting column 13 line 64 and ending column 14, line 34); an antenna box that communicates with the plurality of wireless information storage devices to receive a signal from the plurality of the wireless information storage devices (as seen in Figures 7 and 8 and starting column 14, line 53, ending column 15, line 30), a computer connected to the antenna box to process the signal received via the antenna box (as seen in Figures 7 and 8 and starting column 14, line 53, ending column 15, line 30).

It would have been obvious to one skilled in the art at the time of invention to have included into Kelly's contact-less data collection system, Yap's antenna structure and position, for the purposes of quickly and securely verifying information for security purposes in a reliable manner without added delay or inconvenience, as taught by Yap.

Kelly in view of Yap do not specifically teach of a plurality of wireless information storage devices which are stacked in a line each of the devices including; [a coil antenna having a two-dimensional center for transmitting and/or receiving a signal via wireless communication] and a space therein; and [a memory] arranged in the space of the coil antenna for storing information; or the control unit being arranged in the space of the coil antenna.

In a related art dealing with embedded antennas, Rostoker teaches of a plurality of wireless information storage devices which are stacked in a line each of the devices including (as seen in Figures 6 –8 and starting column 8, line 66 and ending column 9, line 55 and column 10, lines 1 – 46).

It would have been obvious to one skilled in the art at the time of invention to have included into Kelly and Yap's contact-less communication device, Rostoker's antenna system, for the purposes of reducing the physical size of the radio system, as taught by Rostoker.

Kelly in view of Yap and Rostoker, do not teach of [a coil antenna having a two-dimensional center for transmitting and/or receiving a signal via wireless communication] and a space therein; and [a memory] arranged in the space of the coil antenna for storing information; or the control unit being arranged in the space of the coil antenna.

In a related art dealing with card readers, Farmont teaches of [a coil antenna having a two-dimensional center for transmitting and/or receiving a signal via wireless communication] and a space therein (as seen in Figure 1 and column 4, lines 38 – 51 and column 3, lines 36 – 47); and [a memory] arranged in the space of the coil antenna for storing information (as seen in Figure 1 and column 4, lines 38 – 51 and column 3, lines 36 – 47); or the control unit being arranged in the space of the coil antenna (as seen in Figure 1 and column 4, lines 38 – 51 and column 3, lines 36 – 47).

It would have been obvious to one skilled in the art at the time of invention to have included into Kelly, Yap, and Rostoker's card reader, Farmont's positioning inside the antenna, to further utilize wasted space and therefore further decrease the physical size of the reader, as taught by Farmont.


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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tanmay S Lele whose telephone number is (703) 305-3462. The examiner can normally be reached on 9 - 6:30 PM Monday – Thursdays and on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor, Thanh Cong Le can be reached on (703) 305-4819. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.


Tanmay S Lele
Examiner
Art Unit 2681

tsl
March 25, 2003


THANH CONG LE
PRIMARY EXAMINER

4/2/03

